| .5 | SHAPING OR TREATING RADIOACTIVE MATERIAL (E.G., FISSIONABLE OR | 3.1 | EXPLOSIVE OR PROPELLANT ARTICLE SHAPING OR TREATING |
|------|--|------|---|
| | FERTILE, ETC.) | 3.2 | .Rolling to form sheet or rod |
| 1.1 | OPTICAL ARTICLE SHAPING OR | 3.3 | .Extrusion to form sheet or rod |
| | TREATING | 3.4 | .Forming or treating particulate |
| 1.21 | .Nonresinous material only (e.g., | | material |
| | ceramic, etc.) | 3.5 | By liquid comminuting |
| 1.22 | Scandium (Sc), yttrium (Y), or | 3.6 | Immersed in liquid |
| | rare earth containing (i.e., | 4 | ENCAPSULATING NORMALLY LIQUID |
| | atomic numbers 21, 39, or 57- | | MATERIAL |
| | 72) | 4.1 | .Liquid encapsulation utilizing |
| 1.23 | Halogen containing | | an emulsion or dispersion to |
| 1.24 | .Optical fiber, waveguide, or | | form a solid-walled |
| | preform | | microcapsule (includes |
| 1.25 | Forming connector or coupler | | liposome) |
| | (e.g., fiber link, etc.) | 4.3 | With treatment subsequent to |
| 1.26 | Having lens integral with | | solid wall formation (e.g., |
| | fiber | | coating, hardening, etc.) |
| 1.27 | Utilizing plasma, electric, | 4.32 | Microcapsule wall containing |
| | electromagnetic, particle, or | | two or more layers |
| | wave energy | 4.33 | Microcapsule wall derived from |
| 1.28 | Forming fiber bundle or cable | | synthetic polymer |
| | (e.g., covering, etc.) | 4.4 | Solid-walled microcapsule |
| 1.29 | Extruding (i.e., die) | | formed by cooling molten |
| 1.31 | .Light polarizing article or | | materials |
| | holographic article | 4.6 | Solid-walled microcapsule |
| 1.32 | Lens | | formed by physically removing |
| 1.33 | Optical recording medium | | a constituent (e.g., |
| 1.34 | Film or sheet | 4 7 | evaporation, extraction, etc.) |
| 1.35 | Halogen containing | 4.7 | Solid-walled microcapsule |
| 1.36 | .Utilizing plasma, electric, | | formed by in situ polymerization |
| | electromagnetic, particulate, | 5 | FORMATION OF SOLID PARTICULATE |
| | or wave energy | 5 | MATERIAL DIRECTLY FROM MOLTEN |
| 1.37 | Laser utilized | | OR LIQUID MASS (E.G., LIQUID |
| 1.38 | Ultraviolet light utilized | | COMMINUTING) |
| 1.6 | .Continuous or indefinite length | 6 | .With subsequent uniting of the |
| 1.7 | .Composite or multiple layer | | particles |
| 1.8 | Including bifocal | 7 | .Coated particles |
| 1.9 | Reflective | 8 | .Utilizing centrifugal force or |
| 2.1 | .Rotational molding | | rotating forming zone |
| 2.2 | .Changing mold size or shape | 9 | .By vibration or agitation |
| | during molding or with | 10 | .Utilizing electrical energy |
| | shrinkage compensation | 11 | .By impinging plural liquid |
| 2.3 | With mold adherence or release | | masses |
| 2.4 | Preform | 12 | .By impinging or atomizing with |
| 2.5 | .Including step of mold making | | gaseous jet or blast |
| 2.6 | .Nonmechanical aftertreatment | 13 | .By extrusion spraying or gravity |
| | (e.g., hydration of contact | | fall through orifice |
| | lens, extraction, heat | 14 | Into moving fluid |
| 0 7 | treatment, etc.) | 15 | SPHEROIDIZING OR ROUNDING OF |
| 2.7 | Reshaping or treatment of an | | SOLID PARTICLES |
| | optical preform | 16 | DENTAL SHAPING TYPE |
| | | 17 | .Denture forming |
| | | | <u>-</u> |

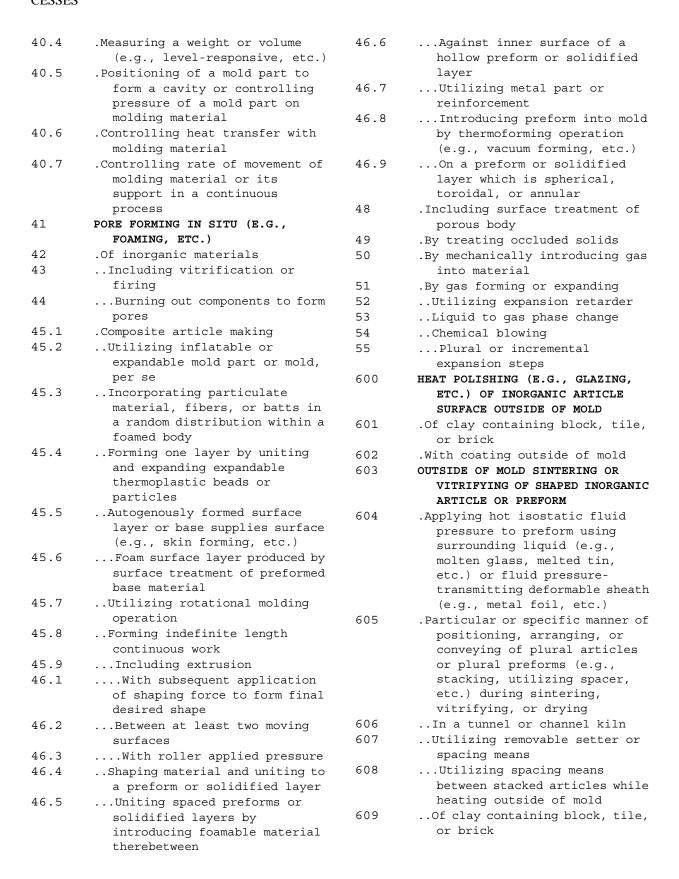
264 - 2 CLASS 264 PLASTIC AND NONMETALLIC ARTICLE SHAPING OR TREATING: PROCESSES

| 18 | Forming denture base against preformed teeth | 416 | Using liquid to gas blowing agent |
|-----|--|-----|--|
| 19 | .Tooth forming | 417 | Microwave (e.g., 2.45 |
| 20 | Shaded layer | | gigahertz, etc.) |
| 21 | SHAPING OR TREATING LUMINESCENT MATERIAL | 418 | Radio frequency (e.g., 13.56 megahertz, etc.) |
| 400 | LASER ABLATIVE SHAPING OR | 419 | |
| 400 | | _ | Using chemical blowing agent |
| | PIERCING (I.E., NONETCHING, DEVOID OF CHEMICAL AGENT OTHER | 420 | Microwave (e.g., 2.45 |
| | | 401 | gigahertz, etc.) |
| 401 | THAN AIR) | 421 | Radio frequency (e.g., 13.56 |
| 401 | STEREOLITHOGRAPHIC SHAPING FROM | | megahertz, etc.) |
| 400 | LIQUID PRECURSOR | 422 | Radio frequency (e.g., 13.56 |
| 402 | DIRECT APPLICATION OF ELECTRICAL | | megahertz, etc.) |
| | OR WAVE ENERGY TO HEAT THE | 423 | Plasma (e.g., corona, glow |
| | MOLD (E.G., ELECTROMAGNETIC | | discharge, etc.) |
| | WAVE, PARTICULATE, MAGNETIC, | 424 | Utilizing electron arc or |
| | SONIC, ELECTROSTATIC ENERGY, | | electron beam |
| | ETC.) | 425 | Polymerizing, cross-linking, or |
| 403 | .Induction heating | | curing |
| 404 | .Electrical heating (e.g., | 426 | .Producing or treating inorganic |
| | resistance heat, etc.) | | hydro-settable material (e.g., |
| 405 | DIRECT APPLICATION OF ELECTRICAL | | cement, plaster, etc.) |
| | OR WAVE ENERGY TO WORK (E.G., | 427 | .Producing or treating magnetic |
| | ELECTROMAGNETIC WAVE, | | product precursor thereof |
| | PARTICULATE, MAGNETIC, | 428 | Including vitrifying or |
| | INDUCTION HEAT, SONIC, | | sintering (e.g., fusing, |
| | ELECTROSTATIC ENERGY, ETC.) | | firing, burning, etc.) |
| 406 | .Measuring, testing, or | 429 | Uniting magnetic particles |
| | inspecting | | utilizing organic binder |
| 407 | Using sonic, supersonic, or | | (e.g., resinous binders, etc.) |
| | ultrasonic energy | 430 | .Producing or treating inorganic |
| 408 | Sensing by utilizing light or | | material, not as pigments, |
| | passage of electric-field | | conductive enhancers, or |
| | current through molding | | fillers (e.g., ceramic, |
| | material | | refractory material, etc.) |
| 409 | Laser | 431 | Induction heating |
| 410 | Infrared radiation | 432 | Microwave (e.g., 2.45 |
| 411 | Measuring weight or volume | | gigahertz, etc.) |
| | <pre>(e.g., level-responsive, etc.)</pre> | 433 | Including extruding (e.g., |
| 412 | Controlling rate of movement | | spinning, etc.) |
| | of molding material or its | 434 | Including vitrifying or |
| | support in a continuous | 131 | sintering (e.g., fusing, |
| | process | | firing, burning, etc.) |
| 497 | .Using laser sintering of | 435 | .Molecular aligning or molecular |
| | particulate material to build | 433 | orientating (e.g., poling, |
| | three-dimensional product | | etc.) |
| | (e.g., SLS, selective laser | 436 | Producing permanently polarized |
| | sintering, etc.) | 430 | |
| 413 | .Producing or treating porous | | <pre>dielectric (e.g., electret, etc.)</pre> |
| | product | 127 | • |
| 414 | Inorganic material containing | 437 | .Conveying or aligning |
| 415 | Including in situ (e.g., | 420 | particulate material |
| | foaming) | 438 | Utilizing electrostatic charge |
| | , | 439 | Simultaneously with molding |
| | | 440 | Forming composite structure |
| | | | |

| 441Producing filament 470 electron beam ultrasonic energy ultrasonic energy ultrasonic energy 471Layered or structurally layered composite layered or structurally layered composite layered layered composite layer particulate radiation layered composite layer particulate radiation layered composite layer, gamma ray, neutron, etc.) layered composite layered composite layered composite layered composite layered composite layer, gamma ray, neutron, etc.) layered composite layered composite layered composite layered layered composite layered | | | | |
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| ultrasonic energy 43 | | _ | 470 | |
| 444Producing articles of indefinite length | 442 | | | |
| 444Froducing articles of indefinite length indefinite length | | 3. | 471 | |
| indefinite length Library Dodies and shaping at the bodies and shaping at the joint to limited to treatment of surface or coated surface or deferring the surface or deferri | | | | |
| 445 bodies and shaping at the joint 476 limited to treatment of surface or coated surface or coated surface or coated surface or electrode or electrical wire with precursor or workpiece decirous enhancing specified conductive enhancing specified conductive enhancing component (e.g., filler, etc.) 481 composite work-piece electrode specified pressure (e.g., blow molding pressure (e.g., blow molding pressure (e.g., blow molding electron beam 485 curing 486 curing 487 curing 487 curing 488 curing 489 curing 480 composite work-piece 485 curing 486 curing 486 curing 487 curing 488 curing 489 curing 489 curing 489 curing 489 curing 489 curing 480 composite work-piece 480 curing 480 composite work-piece 480 curing 480 curin | 444 | _ | | _ |
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| ### Direct application of fluid pressure (e.g., blow molding, etc.) ################################### | | _ | 484 | _ |
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| 455Plasma (e.g., corona, glow discharge, etc.) 486 .Induction heating 487Composite work-piece electron beam 488Infigure and interest of electron heating 488Infigure and interest of electron heating 489Polymerizing, cross-linking, or curing 460Utilizing electron arc or electron beam 480Infigure and interest of electron beam 480Infigure and interest of electron beam 480Infigure and electron arc or electron beam 480Infigure and electron arc or electron beam 481Infigure and electron beam 482Infigure and electron beam 483Polymerizing, cross-linking, or curing 484Infigure and electron electron beam 485Utilizing electrostatic charge, etc.) 486Infigure and electrostatic charge, electron electron beam 489Infigure and electrostatic charge, electron electron electron beam 489Infigure and electrodes spaced between the extruding means and the shaping surface 488Including differential fluid pressure application (e.g., 29.2 electron electro | | etc.) | 485 | .Utilizing electron arc or |
| 456Utilizing electron arc or electron beam 488Composite work-piece electron beam 488Induction heating radiation (e.g., X-ray, gamma ray, neutron, etc.) 459Polymerizing, cross-linking, or curing articles by uniting randomly associated particles 491Composite work-piece randomly associated particles 491Composite work-piece randomly associated particles 491Infrared radiation 493Composite work-piece randomly associated particles 491Infrared radiation 493Composite work-piece 463Polymerizing, cross-linking, or curing e.g., utilizing ultraviolet radiation 494Composite work-piece 495Infrared radiation 496Utilizing electrostatic charge, 495Indefinite length articles field, or force (e.g., 496While contacting a shaping pinning, etc.) 496On film, sheet or web 497Plural electrodes spaced 498Indefinite length articles 499Plural electrodes spaced 499Indefinite length articles 490On film, sheet or web 490Plural electrodes spaced 490Indefinite length articles 490Plural electrodes spaced 490Composite work-piece 495While contacting a shaping 497 surface (e.g., in mold curing, 496On film, sheet or web 496Plural electrodes spaced 497Plural electrodes spaced 498Including differential fluid 499.1 CARBONIZING TO FORM ARTICLE 499Plural 499Plural 499Plasma (e.g., corona, glow 499Plasma (e.g., corona, glow 499Prom cellulosic material | 455 | Plasma (e.g., corona, glow | | electron beam |
| electron beam 488 .High energy or particulate 457 .Induction heating radiation (e.g., X-ray, gamma ray, neutron, etc.) 458 .Infrared radiation 489 .Microwave (e.g., 2.45 gigahertz, curing 460 .Forming articles by uniting 490 .Composite work-piece randomly associated particles 491 .Radio frequency (e.g., 13.56 megahertz, etc.) 461 .Utilizing electron arc or electron beam 492 .Infrared radiation 462 .Infrared radiation 493 .Composite work-piece 463 .Polymerizing, cross-linking, or curing .Polymerizing, cross-linking, or curing ultraviolet radiation, etc.) 464 .Extrusion molding 495 .Indefinite length articles field, or force (e.g., 496Utilizing electrostatic charge, pinning, etc.) 466On film, sheet or web 496Plural electrodes spaced between the extruding means and the shaping surface 497Plural electrodes spaced 28 with STEP OF COOLING TO A between the extruding means and the shaping surface 499Indefinite To FORM ARTICLE pressure application (e.g., 29.2 .Filaments vacuum, etc.) .Plasma (e.g., corona, glow 29.4 .From cellulosic material | | discharge, etc.) | 486 | .Induction heating |
| 457Induction heating radiation (e.g., X-ray, gamma ray, neutron, etc.) 458Infrared radiation ray, neutron, etc.) 459Polymerizing, cross-linking, or curing 460 .Forming articles by uniting randomly associated particles are randomly associated particles are randomly associated particles randomly associated particles are randomly associated particles rand | 456 | Utilizing electron arc or | 487 | Composite work-piece |
| 458Infrared radiation ray, neutron, etc.) 459Polymerizing, cross-linking, or curing 460 .Forming articles by uniting randomly associated particles 491Composite work-piece randomly associated particles 491Radio frequency (e.g., 13.56 megahertz, etc.) 461Utilizing electron arc or electron beam 492Infrared radiation 462Infrared radiation 493Composite work-piece 463Polymerizing, cross-linking, or curing (e.g., utilizing electrostatic charge, field, or force (e.g., field, or force (e.g., pinning, etc.) 465On film, sheet or web 466On film, sheet or web 467Plural electrodes spaced between the extruding means and the shaping surface 468Including differential fluid pressure application (e.g., 29.2 vacuum, etc.) 469Plasma (e.g., corona, glow 29.4 .From cellulosic material | | electron beam | 488 | .High energy or particulate |
| 459Polymerizing, cross-linking, or curing etc.) 460 .Forming articles by uniting and associated particles 491Composite work-piece randomly associated particles 491Composite work-pieceComposite work-pi | 457 | _ | | radiation (e.g., X-ray, gamma |
| curing 490Composite work-piece randomly associated particles 491 .Radio frequency (e.g., 13.56 megahertz, etc.) 461Utilizing electron arc or electron beam 492 .Infrared radiation 462Infrared radiation 493Composite work-piece 463Polymerizing, cross-linking, or curing euring 200 Extrusion molding 201 Indefinite length articles field, or force (e.g., pinning, etc.) 28 | | | | |
| 460 .Forming articles by uniting | 459 | | 489 | |
| randomly associated particles 491 .Radio frequency (e.g., 13.56 461Utilizing electron arc or electron beam 492 .Infrared radiation 462Infrared radiation 493Composite work-piece 463Polymerizing, cross-linking, or curing 464 .Extrusion molding 465Utilizing electrostatic charge, field, or force (e.g., pinning, etc.) 466On film, sheet or web 467Plural electrodes spaced between the extruding means and the shaping surface 468Including differential fluid pressure application (e.g., vacuum, etc.) 469Plasma (e.g., corona, glow 491 .Radio frequency (e.g., 13.56 megahertz, etc.) 492 .Infrared radiation 493Composite work-piece 494 .Polymerizing, cross-linking, or curing (e.g., utilizing ultraviolet radiation, etc.) 495Indefinite length articles 496While contacting a shaping surface (e.g., in mold curing, etc.) 496Wille contacting a shaping surface (e.g., in mold curing, etc.) 497Plural electrodes spaced 28 WITH STEP OF COOLING TO A TEMPERATURE OF ZERO DEGREES C. OR BELOW 498Including differential fluid 29.1 CARBONIZING TO FORM ARTICLE Pressure application (e.g., 29.2 .Filaments 499Plasma (e.g., corona, glow 29.4 .From cellulosic material | | 3 | | , |
| 461Utilizing electron arc or electron beam 492 .Infrared radiation 462Infrared radiation 493Composite work-piece 463Polymerizing, cross-linking, or curing 464 .Extrusion molding 495Utilizing electrostatic charge, field, or force (e.g., pinning, etc.) 496While contacting a shaping pinning, etc.) 496Plural electrodes spaced 467Plural electrodes spaced 468Including differential fluid 468Including differential fluid 469Plasma (e.g., corona, glow 49From cellulosic material | 460 | | | |
| electron beam 492 .Infrared radiation 462Infrared radiation 493Composite work-piece 463Polymerizing, cross-linking, or curing (e.g., utilizing ultraviolet radiation, etc.) 464 .Extrusion molding ultraviolet radiation, etc.) 465Utilizing electrostatic charge, 495Indefinite length articles field, or force (e.g., 496While contacting a shaping pinning, etc.) 466On film, sheet or web etc.) 467Plural electrodes spaced 28 WITH STEP OF COOLING TO A between the extruding means and the shaping surface OR BELOW 468Including differential fluid 29.1 CARBONIZING TO FORM ARTICLE pressure application (e.g., 29.2 .Filaments vacuum, etc.) 29.3 .Agglomeration or accretion 469Plasma (e.g., corona, glow 29.4 .From cellulosic material | 1.61 | | 491 | |
| 462Infrared radiation 493Composite work-piece 463Polymerizing, cross-linking, or curing 494 .Polymerizing, cross-linking, or curing (e.g., utilizing ultraviolet radiation, etc.) 464 .Extrusion molding ultraviolet radiation, etc.) 465Utilizing electrostatic charge, 495Indefinite length articles field, or force (e.g., 496While contacting a shaping pinning, etc.) surface (e.g., in mold curing, etc.) 466Plural electrodes spaced 28 WITH STEP OF COOLING TO A between the extruding means and the shaping surface OR BELOW 468Including differential fluid 29.1 CARBONIZING TO FORM ARTICLE pressure application (e.g., 29.2 .Filaments vacuum, etc.) .Plasma (e.g., corona, glow 29.4 .From cellulosic material | 461 | _ | 4.0.0 | _ |
| 1. Polymerizing, cross-linking, or curing curing curing curing curing (e.g., utilizing ultraviolet radiation, etc.) 464 | 160 | | - | |
| curing 464 | | | | |
| 464 .Extrusion molding ultraviolet radiation, etc.) 465Utilizing electrostatic charge, field, or force (e.g., pinning, etc.) 466On film, sheet or web 467Plural electrodes spaced between the extruding means and the shaping surface 468Including differential fluid pressure application (e.g., vacuum, etc.) 469Plasma (e.g., corona, glow 29.4 .From cellulosic material | 403 | | 494 | |
| 465Utilizing electrostatic charge, field, or force (e.g., pinning, etc.) 496While contacting a shaping surface (e.g., in mold curing, etc.) 466Plural electrodes spaced 28 WITH STEP OF COOLING TO A between the extruding means and the shaping surface OR BELOW CARBONIZING TO FORM ARTICLE pressure application (e.g., vacuum, etc.) 29.2 .FilamentsPlasma (e.g., corona, glow 29.4 .From cellulosic material | 464 | _ | | |
| field, or force (e.g., pinning, etc.) 466On film, sheet or web etc.) 467Plural electrodes spaced between the extruding means and the shaping surface or surface or between the extruding means and the shaping surface 468Including differential fluid pressure application (e.g., vacuum, etc.) 469Plasma (e.g., corona, glow 29.4 .From cellulosic material | | | 495 | |
| pinning, etc.) 466On film, sheet or web 467Plural electrodes spaced between the extruding means and the shaping surface 468Including differential fluid pressure application (e.g., 29.2 .Filaments vacuum, etc.) 469Plasma (e.g., corona, glow 28 WITH STEP OF COOLING TO A TEMPERATURE OF ZERO DEGREES C. OR BELOW CARBONIZING TO FORM ARTICLE Filaments Agglomeration or accretion 469Plasma (e.g., corona, glow 29.4 .From cellulosic material | 103 | _ | | |
| 466On film, sheet or web 467Plural electrodes spaced between the extruding means and the shaping surface 468Including differential fluid pressure application (e.g., vacuum, etc.) 469Plasma (e.g., corona, glow 460 etc.) 470 WITH STEP OF COOLING TO A TEMPERATURE OF ZERO DEGREES C. OR BELOW CARBONIZING TO FORM ARTICLE Filaments Agglomeration or accretion Agglomeration or accretion Agglomeration or accretion From cellulosic material | | | 100 | |
| 467Plural electrodes spaced between the extruding means and the shaping surface 468Including differential fluid pressure application (e.g., vacuum, etc.) 469Plasma (e.g., corona, glow 28 WITH STEP OF COOLING TO A TEMPERATURE OF ZERO DEGREES C. OR BELOW CARBONIZING TO FORM ARTICLE print application (e.g., 29.2 .Filaments .Agglomeration or accretion 29.3 .From cellulosic material | 466 | = - | | |
| and the shaping surface OR BELOW CARBONIZING TO FORM ARTICLE pressure application (e.g., 29.2 .Filaments vacuum, etc.) 29.3 .Agglomeration or accretion A69Plasma (e.g., corona, glow 29.4 .From cellulosic material | 467 | | 28 | WITH STEP OF COOLING TO A |
| 468Including differential fluid 29.1 CARBONIZING TO FORM ARTICLE pressure application (e.g., 29.2 .Filaments vacuum, etc.) 29.3 .Agglomeration or accretion 469Plasma (e.g., corona, glow 29.4 .From cellulosic material | | | | TEMPERATURE OF ZERO DEGREES C. |
| pressure application (e.g., 29.2 .Filaments vacuum, etc.) 29.3 .Agglomeration or accretionPlasma (e.g., corona, glow 29.4 .From cellulosic material | | and the shaping surface | | OR BELOW |
| vacuum, etc.) 29.3 .Agglomeration or accretionPlasma (e.g., corona, glow 29.4 .From cellulosic material | 468 | _ | 29.1 | CARBONIZING TO FORM ARTICLE |
| 469Plasma (e.g., corona, glow 29.4 .From cellulosic material | | | | .Filaments |
| | | | 29.3 | |
| discharge, etc.) | 469 | | 29.4 | .From cellulosic material |
| | | discharge, etc.) | | |

264 - 4 CLASS 264 PLASTIC AND NONMETALLIC ARTICLE SHAPING OR TREATING: PROCESSES

| 29.5 | .With carbonizing, then adding | 36.22 | .By polymerizing, cross-linking, |
|-------|--|--------------|--|
| | carbonizable material and recarbonizing | | or curing (e.g., hardening, etc.) |
| 29.6 | .In specific atmosphere (except vacuum or air) | 37.1 | RECYCLING OF RECLAIMED OR PURIFIED PROCESS MATERIAL (NOT |
| 29.7 | .Controlling varying temperature or plural heating steps | | RECYCLED CONSUMER USED ARTICLES) |
| 30 | FURNACE LINING FORMATION OR | 37.11 | .Vaporizing to recycle liquid |
| | REPAIR | 37.12 | The liquid is, or is part of, |
| 31 | FORMING STRUCTURAL INSTALLATIONS | | an extrudant bath |
| | IN SITU | 37.13 | The liquid is a solvent for |
| 32 | .Arched, domed, or vertical- | 25.14 | organic process material |
| | cylindrical structure | 37.14 | .Of gaseous process material |
| 33 | Repositioning or moving mold to | | <pre>(e.g., cooling gas, blowing gas, etc.)</pre> |
| | form sequential portions of a structure | 37.15 | Of gas utilized in forming |
| 34 | .Sequentially molding in situ | 37.13 | porous material |
| 34 | different portions or layers | 37.16 | Of blow molding gas |
| | on a unitary structure | 37.10 | Of gas utilized for heating or |
| 35 | .Uniting preform member with | 37.17 | cooling |
| 33 | molding material | 37.18 | Of liquid process material |
| 36.1 | REPAIRING OR RESTORING CONSUMER | 37.10 | (e.g., suspensions, etc.) |
| 30.1 | USED ARTICLES FOR REUSE | 37.19 | From hydro-settable suspension |
| 36.11 | .Articles containing nontextile | 37.2 | The liquid is from an |
| | porous material (e.g., foam, | | extrudant-receiving bath |
| | sponge, etc.) | | (e.g., liquid suspensions, |
| 36.12 | .Balls or rollers (e.g., printing | | etc.) |
| | rollers, golf balls, etc.) | 37.21 | Containing ethylene or |
| 36.13 | .Sound records (e.g., by removing grooves, etc.) | | propylene carbonate in the bath |
| 36.14 | .Toroidal shapes (e.g., resilient | 37.22 | Containing acetic, nitric, or |
| 30.11 | tires, etc.) | | sulfuric acid in the bath |
| 36.15 | .Hollow- or container-type | 37.23 | Containing zinc(Zn), lead(Pb), |
| | articles (e.g., vase, pipes, | | or copper(Cu) ions in the bath |
| | cups, tubes, etc.) | 37.24 | With filtration |
| 36.16 | Pipes or tubes | 37.25 | Into blow molding process |
| 36.17 | By application of internal | 37.26 | Into extrusion molding process |
| | fluid pressure differential to | 37.27 | Into injection molding process |
| | permanently shape, distort, or | 37.28 | .Of excess fiber or filament |
| | sustain material to repair or | 37.29 | .Of excess solid particulate |
| | restore pipes or tubes (e.g., flexible bladder, expandable | 25 2 | (e.g., dust, powder, etc.) |
| | tubular pig, etc.) | 37.3 | Of process trim or excess |
| 36.18 | .Inorganic material containing | | <pre>blanked material (e.g., sprue, runner, flash, etc.)</pre> |
| 33123 | articles (e.g., plaster board, | 37.31 | |
| | ceramic, fiberglass, etc.) | 37.31 | Into blow molding processInto extrusion molding process |
| 36.19 | Clad wire or cable (e.g., by | 37.32 | Into extrusion molding process |
| | restoring sheathing, etc.) | 37.33 | WITH STEP OF CLEANING, POLISHING, |
| 36.2 | Hydro-set material (e.g., | 3,5 | OR PRECONDITIONING APPARATUS |
| | cement, concrete, plaster | | FOR USE |
| | board, etc.) | 40.1 | WITH MEASURING, TESTING, OR |
| 36.21 | By shaping nonglass material to | - | INSPECTING |
| | repair damaged glass | 40.3 | .Controlling fluid pressure in |
| | | | direct contact with molding |
| | | | material |



264 - 6 CLASS 264 PLASTIC AND NONMETALLIC ARTICLE SHAPING OR TREATING: PROCESSES

| 610 | .Simultaneously burning, vaporizing, or melting of embedded element or core to | 637 | Removal of liquid component or carrier through porous or absorbent mold surface |
|------------|--|-----|---|
| 611 | <pre>form nonrandom void .Of magnetic (e.g., ferrite,</pre> | 638 | <pre>.Shaping by extrusion (e.g., spinning, etc.)</pre> |
| | etc.) article or component | 639 | Of indefinite length product |
| 612 | Using organic binder or organometallic | | (e.g., sheet, tape, rod, fiber, etc.) |
| 613 | <pre>Specifying atmosphere other than air (e.g., oxidizing,</pre> | 640 | <pre>.Producing fiber containing article or fiber</pre> |
| 614 | inert, 10% oxygen, etc.) .Of electrical article or | 641 | Producing uniformly dispersed |
| 614 | electrical component (i.e., | | particulate fiber containing article |
| 615 | <pre>not insulator, per se)Capacitor (e.g., condensor,</pre> | 642 | .Shaping or treating of multilayered, impregnated, or |
| | etc.) | | composite-structured article |
| 616 617 | Resistor | 643 | Shaping followed by article coating or impregnating |
| 618 | VaristorCeramic containing electrode, | 644 | Clay containing block, tile, or |
| 010 | or coil, electrode, or coil | 044 | brick |
| | having ceramic portion, or | 645 | .Introducing material under |
| | shaped electrolyte body | | pressure into mold (e.g., |
| 619 | Having patterned metal | | injection molding, etc.) |
| | electrical conductor other | 646 | .Utilizing chemically reactive |
| | <pre>than electrode (e.g., printed circuit, etc.)</pre> | | atmosphere other than air, per se, during sintering to |
| 620 | Having plural heating steps | | convert precursor to ceramic |
| 621 | .Utilizing sol or gel | | material |
| 622 | Unconfined drawing or extending | 647 | Nitrogen |
| | of plastic mass to form | 648 | Using oxygen enriched gas or |
| | article | | oxidizing atmosphere (i.e., |
| 623 | Shaping by extrusion (e.g., | 640 | other than air, per se) |
| 604 | spinning, etc.) | 649 | .Utilizing exothermic reaction |
| 624 | .Using organometallic or organosilicon intermediate | 650 | .Casting of film (e.g., sheet, tape, etc.) |
| 625 | Forming carbide or carbonitride | 651 | .Removal of liquid component or |
| 606 | containing product | | carrier through porous or absorbent mold surface (e.g., |
| 626 | Forming nitride or oxynitride containing product | | slip casting, etc.) |
| 627 | Forming fiber | 652 | .Sintering or vitrifying in a |
| 628 | .Producing microporous article | | tunnel or channel kiln |
| | (e.g., filter, etc.) | 653 | .Including plural heating steps |
| 629 | .Producing article having plural hollow channels | 654 | Including diverse heating of article prior to outside-mold |
| 630 | Producing honeycomb shape | | sintering or vitrifying |
| 631 | From cordierite (i.e., | 655 | With article cutting, |
| | 2MgO.2A12O3.5SiO2, iolite) | | punching, or grinding |
| 632 | <pre>.Producing hollow article (e.g., tube, etc.)</pre> | 656 | Including nonsintering burn- off, volatilization, or |
| 633 | Producing bowl-like article | | melting of binder |
| 634 | Shaping by extrusion (e.g., | 657 | Of synthetic resin binder |
| | spinning, etc.) | 658 | Including reaction of |
| 635 | Utilizing core mandrel | | precursor to form new |
| 636 | Casting suspension of particles against forming surface | | inorganic compound or composition |
| | | | |

| 659 | Forming nitride or oxynitride containing product | 678 | .With article cutting, punching or grinding |
|------------|---|-----|---|
| 660 | With drying of shaped article | 679 | .Of clay containing material |
| | or preform using nonsintering heat | 680 | Clay containing block, tile, or brick |
| 661 | With drying, calcining, or sintering of non-shaped | 681 | .Producing metal oxide containing product |
| | particulate | 682 | .Producing silicon carbide |
| 662 | Including diverse heating of | | containing product |
| | article subsequent to sintering | 683 | .Producing silicon nitride containing product |
| 663 | Subsequent hot pressing (i.e., press molding or by gas | 68 | INCLUDING STEP OF GENERATING HEAT BY FRICTION |
| | pressure) | 69 | TREATMENT OF MATERIAL BY |
| 664 | Specified temperature or | | VIBRATING, JARRING, OR |
| | pressure for hot pressing | | AGITATING DURING SHAPING |
| 665 | <pre>Silicon nitride containing product</pre> | 70 | .Continuously formed or indefinite length article |
| 666 | <pre>Plural sintering steps having specified temperature (e.g.,</pre> | 71 | .By reciprocating or vibrating mold |
| | <pre>presintering, etc.)</pre> | 72 | Diverse, sequential, or |
| 667 | .Including specified molding | | modulated |
| | pressure or controlling of | 73 | RANDOM VARIEGATED COLORING DURING |
| | molding pressure (e.g., cold | | MOLDING |
| | isostatic pressing, | 74 | .Of surface portion only |
| 660 | hydrostatic pressure, etc.) | 75 | .By extrusion |
| 668 | <pre>Producing metal nitride or silicon nitride containing</pre> | 76 | .By calendering |
| | product | 77 | .By compression in a closed mold |
| 669 | .Utilizing binder to add green | | cavity |
| 003 | strength to preform | 78 | WITH INCORPORATING DYE |
| 670 671 | Of synthetic resin binder | | SUSCEPTIBLE MATERIAL OR DYEING WORKPIECE |
| 671 | .Particular or specific manner of positioning, arranging, or conveying of single article or | 79 | WITH APPLICATION OR BARRIER FOR VOLATILE COMPONENT MATERIAL TO MOLDED ARTICLE SURFACE |
| | <pre>preform (e.g., utilizing spacer, etc.) during</pre> | 80 | FLAME CONTACT OR RESHAPING BY |
| | sintering, vitrifying, or | 0.1 | HEAT DECOMPOSITION OF WORK |
| | drying | 81 | GAS OR VAPOR DEPOSITION OF ARTICLE FORMING MATERIAL ONTO |
| 672 | To control or compensate shrinkage | | MOLD SURFACE |
| 673 | Utilizing particulate or | 82 | REACTIVE GAS OR VAPOR TREATMENT |
| | sintered particulate packing, | | OF WORK |
| | or support | 83 | .Work is organic material |
| 674 | .Involving specified composition | 84 | APPLYING EXPLOSIVE FORCE TO MAKE |
| | of heating atmosphere, other | 0.5 | ARTICLE |
| | than air | 85 | UTILIZING SPECIAL INERT GASEOUS |
| 675 | Containing water vapor | | ATMOSPHERE OR FLUSHING MOLD WITH INERT LIQUID |
| 676 | Containing nitrogen gas, noble | 86 | REMOVAL OF LIQUID COMPONENT OR |
| | gas, or inert gas, per se | 00 | CARRIER THROUGH POROUS MOLD |
| 677 | .Controlling or directing flow of | | SURFACE |
| | heated gas or exhaust within | 87 | .By direct application of vacuum |
| | heating chamber (e.g., | - | or pneumatic pressure |
| | sintering furnace, drying | | F 11 F 22 2 2 2 |
| | chamber, etc.) or against | | |
| | article | | |

264 - 8 CLASS 264 PLASTIC AND NONMETALLIC ARTICLE SHAPING OR TREATING: PROCESSES

| 500 | DIRECT APPLICATION OF FLUID PRESSURE DIFFERENTIAL TO PERMANENTLY SHAPE, DISTORT, OR SUSTAIN WORK | 523 | .Including application of internal fluid pressure to hollow finite length parison to expand same into conformity |
|-----|--|-----|---|
| 501 | <pre>.Producing toroidal work (e.g., tire, etc.)</pre> | 524 | with female mold partProduction of a sealed product |
| 502 | At least a portion of the external surface being | 321 | or a filled mercantile |
| | unconfined during application of fluid pressure | 525 | Including maintenance or production of internal |
| 503 | .Shaping against interior of a forming surface by rotation of | 526 | sterilityIncluding use of vacuum or |
| | material or material shaping member | 520 | internal venting of parison to remove fluid after application |
| 504 | .Perforation by differential | | of differential fluid pressure |
| | fluid pressure; or smoothing, scoring, or cutting of green | 527 | Forming multiple containers in a single mold block from a |
| | concrete with fluid pressure | | single length of parison |
| 505 | .Corrugating | 528 | Including internal cooling of |
| 506 | Of a tubular preform | | the article after fluid |
| 507 | With axial compression | F00 | pressure shaping |
| 508 | Continuous or indefinite length | 529 | Including plural distinct steps of differential fluid pressure |
| 509 | .Labeling or embossing indicia | | induced expansion |
| 510 | <pre>.Producing multilayer work or article</pre> | 530 | In diverse female mold cavities |
| 511 | Including application of vacuum to hold, support, or sustain a preform against which material is molded | 531 | Including shaping by mechanical means other than fluid pressure during or subsequent to fluid pressure differential |
| 512 | Producing hollow work or a tubular article | 532 | shapingShaping is longitudinal or |
| 513 | Including injection | | axial stretching prior to or |
| 514 | Including extrusion | | during differential fluid |
| 515 | Including forming a hollow | | pressure deformation |
| | article | 533 | Shaping is neck formation |
| 516 | By insertion or application of a preform | | other than by closure of mold for body of article |
| 517 | .Bulk deposition of particles by differential fluid pressure | 534 | Shaping is subsequent to expansion |
| 518 | Continuous or indefinite length | 535 | Including heating of previously |
| 519 | .Differential temperature conditioning | | formed parison to blow molding temperature |
| 520 | Including application of internal fluid pressure to | 536 | Including removal of flash or sprue |
| | hollow finite length preform | 537 | Including injection forming of |
| | to force same into conformity | | parison or portion thereof |
| | with female mold part | 538 | Arcuate or rotary movement of |
| 521 | Heating | | parison or workpiece from one |
| 522 | Starting material is nonhollow | F20 | work station to another |
| | planar finite length preform | 539 | Including extrusion |
| | or product is planar and of | 540 | Including extrusion |
| | finite length | 541 | <pre>Of irregular or varying cross section</pre> |

| 542 | With movement of parison or workpiece from one work | 567 | With reheating of work (e.g., tempering, annealing, |
|---|--|--|---|
| - 40 | station to another | | etc.) |
| 543 | Movement is arcuate or rotary | 568 | Including use of vacuum |
| 544 | Starting material is nonhollow planar finite length preform | 569 | Including annular fluid contact |
| | or product is finite length | 570 | .Including hydrostatic or liquid |
| 545 | Including uniting plural shaped | | pressure |
| | sheets to form hollow work | 571 | .Including use of vacuum |
| 546 | Material shaped is a fabric, | 572 | .With internal application of |
| 510 | per se | 372 | fluid pressure |
| 547 | - | E 7 3 | - |
| 547 | With distinct staged | 573 | To finite length tubular |
| | deformation by differential | | product |
| | fluid pressure | 574 | To form generally spherical |
| 548 | Including heating after | | product |
| | forcing into contact with a | 101 | VACUUM TREATMENT OF WORK |
| | solid heating means by | 102 | .To degas or prevent gas |
| | differential fluid pressure | | entrapment |
| 549 | Including use of male part to | 103 | WITH TWINING, PLYING, BRAIDING, |
| | stretch heated preform which | | OR TEXTILE FABRIC FORMATION |
| | is formed by a female mold | 104 | FORMING ELECTRICAL ARTICLES BY |
| | which determines shape of work | | SHAPING ELECTROCONDUCTIVE |
| 550 | Including use of male part to | | MATERIAL |
| | stretch heated preform which | 105 | .Conductive carbon containing |
| | is formed by a female mold | 106 | FORMING SOUND GROOVES IN RECORDS |
| | which determines shape of work | | |
| 551 | Simultaneous formation of | 107 | .Die pressing disk type records |
| 001 | plural articles | 108 | ORIENTING OR ALIGNING SOLID |
| | prarar aroros | | |
| 552 | Including curing or | | PARTICLES IN FLUENT MATRIX |
| 552 | Including curing or | | MATERIAL |
| | vulcanization | 109 | MATERIAL FORMING ARTICLES BY UNITING |
| 553 | vulcanizationIncluding use of vacuum | | MATERIAL FORMING ARTICLES BY UNITING RANDOMLY ASSOCIATED PARTICLES |
| | vulcanizationIncluding use of vacuumIncluding use of male mold | 109 110 | MATERIAL FORMING ARTICLES BY UNITING |
| 553 | vulcanizationIncluding use of vacuumIncluding use of male mold part which determines the | | MATERIAL FORMING ARTICLES BY UNITING RANDOMLY ASSOCIATED PARTICLES |
| 553 | <pre>vulcanizationIncluding use of vacuumIncluding use of male mold part which determines the final shape of at least a</pre> | 110 | MATERIAL FORMING ARTICLES BY UNITING RANDOMLY ASSOCIATED PARTICLES .Mica particles |
| 553 554 | vulcanizationIncluding use of vacuumIncluding use of male mold part which determines the final shape of at least a portion of the work | 110 112 | MATERIAL FORMING ARTICLES BY UNITING RANDOMLY ASSOCIATED PARTICLES .Mica particles .Stratified or layered articles |
| 553 | vulcanizationIncluding use of vacuumIncluding use of male mold part which determines the final shape of at least a portion of the work .Production of continuous or | 110 112 | MATERIAL FORMING ARTICLES BY UNITING RANDOMLY ASSOCIATED PARTICLES .Mica particles .Stratified or layered articles Plural layers formed by uniting randomly associated particles |
| 553 554 555 | vulcanizationIncluding use of vacuumIncluding use of male mold part which determines the final shape of at least a portion of the work .Production of continuous or running length | 110 112 113 | MATERIAL FORMING ARTICLES BY UNITING RANDOMLY ASSOCIATED PARTICLES .Mica particles .Stratified or layered articlesPlural layers formed by uniting randomly associated particles .Utilizing centrifugal force |
| 553 554 555 556 | vulcanizationIncluding use of vacuumIncluding use of male mold part which determines the final shape of at least a portion of the work .Production of continuous or running lengthBy casting on to a cooled roll | 110 112 113 | MATERIAL FORMING ARTICLES BY UNITING RANDOMLY ASSOCIATED PARTICLES .Mica particles .Stratified or layered articlesPlural layers formed by uniting randomly associated particles .Utilizing centrifugal force .With liberating or forming of |
| 553 554 555 | vulcanizationIncluding use of vacuumIncluding use of male mold part which determines the final shape of at least a portion of the work .Production of continuous or running length | 110 112 113 114 115 | MATERIAL FORMING ARTICLES BY UNITING RANDOMLY ASSOCIATED PARTICLES .Mica particles .Stratified or layered articles .Plural layers formed by uniting randomly associated particles .Utilizing centrifugal force .With liberating or forming of particles |
| 553 554 555 556 | vulcanizationIncluding use of vacuumIncluding use of male mold part which determines the final shape of at least a portion of the work .Production of continuous or running lengthBy casting on to a cooled roll | 110 112 113 114 115 | MATERIAL FORMING ARTICLES BY UNITING RANDOMLY ASSOCIATED PARTICLES .Mica particles .Stratified or layered articles .Plural layers formed by uniting randomly associated particles .Utilizing centrifugal force .With liberating or forming of particlesFrom felt or batt |
| 553 554 555 556 557 | vulcanizationIncluding use of vacuumIncluding use of male mold part which determines the final shape of at least a portion of the work .Production of continuous or running lengthBy casting on to a cooled rollIncluding liquid contact | 110 112 113 114 115 | MATERIAL FORMING ARTICLES BY UNITING RANDOMLY ASSOCIATED PARTICLES .Mica particles .Stratified or layered articlesPlural layers formed by uniting randomly associated particles .Utilizing centrifugal force .With liberating or forming of particlesFrom felt or batt .Agitating to form larger |
| 553 554 555 556 557 | vulcanizationIncluding use of vacuumIncluding use of male mold part which determines the final shape of at least a portion of the work .Production of continuous or running lengthBy casting on to a cooled rollIncluding liquid contactIncluding internal liquid | 110 112 113 114 115 | MATERIAL FORMING ARTICLES BY UNITING RANDOMLY ASSOCIATED PARTICLES .Mica particles .Stratified or layered articlesPlural layers formed by uniting randomly associated particles .Utilizing centrifugal force .With liberating or forming of particlesFrom felt or batt .Agitating to form larger particles (i.e., accretion or |
| 553 554 555 556 557 558 | vulcanizationIncluding use of vacuumIncluding use of male mold part which determines the final shape of at least a portion of the work .Production of continuous or running lengthBy casting on to a cooled rollIncluding liquid contactIncluding internal liquid contact | 110 112 113 114 115 116 117 | MATERIAL FORMING ARTICLES BY UNITING RANDOMLY ASSOCIATED PARTICLES .Mica particles .Stratified or layered articlesPlural layers formed by uniting randomly associated particles .Utilizing centrifugal force .With liberating or forming of particlesFrom felt or batt .Agitating to form larger particles (i.e., accretion or agglomeration) |
| 553 554 555 556 557 558 | vulcanizationIncluding use of vacuumIncluding use of male mold part which determines the final shape of at least a portion of the work .Production of continuous or running lengthBy casting on to a cooled rollIncluding liquid contactIncluding internal liquid contactWith downward movement of workpiece | 110 112 113 114 115 | MATERIAL FORMING ARTICLES BY UNITING RANDOMLY ASSOCIATED PARTICLES .Mica particles .Stratified or layered articlesPlural layers formed by uniting randomly associated particles .Utilizing centrifugal force .With liberating or forming of particlesFrom felt or batt .Agitating to form larger particles (i.e., accretion or agglomeration) .With subsequent cutting, |
| 553 554 555 556 557 558 559 | vulcanizationIncluding use of vacuumIncluding use of male mold part which determines the final shape of at least a portion of the work .Production of continuous or running lengthBy casting on to a cooled rollIncluding liquid contactIncluding internal liquid contactWith downward movement of workpieceWith calibration, mandrel | 110 112 113 114 115 116 117 | MATERIAL FORMING ARTICLES BY UNITING RANDOMLY ASSOCIATED PARTICLES .Mica particles .Stratified or layered articles .Plural layers formed by uniting randomly associated particles .Utilizing centrifugal force .With liberating or forming of particlesFrom felt or batt .Agitating to form larger particles (i.e., accretion or agglomeration) .With subsequent cutting, grooving, breaking, or |
| 553 554 555 556 557 558 559 | vulcanizationIncluding use of vacuumIncluding use of male mold part which determines the final shape of at least a portion of the work .Production of continuous or running lengthBy casting on to a cooled rollIncluding liquid contactIncluding internal liquid contactWith downward movement of workpieceWith calibration, mandrel forming or with internal guide | 110 112 113 114 115 116 117 | MATERIAL FORMING ARTICLES BY UNITING RANDOMLY ASSOCIATED PARTICLES .Mica particles .Stratified or layered articles .Plural layers formed by uniting randomly associated particles .Utilizing centrifugal force .With liberating or forming of particlesFrom felt or batt .Agitating to form larger particles (i.e., accretion or agglomeration) .With subsequent cutting, grooving, breaking, or comminuting |
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| 553 554 555 556 557 558 559 560 561 | vulcanizationIncluding use of vacuumIncluding use of male mold part which determines the final shape of at least a portion of the work .Production of continuous or running lengthBy casting on to a cooled rollIncluding liquid contactIncluding internal liquid contactWith downward movement of workpieceWith calibration, mandrel forming or with internal guideContact with liquid coagulant or reactive liquidWith immersion in liquid bath | 110 112 113 114 115 116 117 | MATERIAL FORMING ARTICLES BY UNITING RANDOMLY ASSOCIATED PARTICLES .Mica particles .Stratified or layered articles .Plural layers formed by uniting randomly associated particles .Utilizing centrifugal force .With liberating or forming of particles .From felt or batt .Agitating to form larger particles (i.e., accretion or agglomeration) .With subsequent cutting, grooving, breaking, or comminuting .With reshaping or surface embossing of formed article .Plural, intermittent pressure |
| 553 554 555 556 557 558 559 560 561 562 563 | vulcanizationIncluding use of vacuumIncluding use of male mold part which determines the final shape of at least a portion of the work .Production of continuous or running lengthBy casting on to a cooled rollIncluding liquid contactIncluding internal liquid contactWith downward movement of workpieceWith calibration, mandrel forming or with internal guideContact with liquid coagulant or reactive liquidWith immersion in liquid bathProducing a tubular product | 110 112 113 114 115 116 117 118 | MATERIAL FORMING ARTICLES BY UNITING RANDOMLY ASSOCIATED PARTICLES .Mica particles .Stratified or layered articles .Plural layers formed by uniting randomly associated particles .Utilizing centrifugal force .With liberating or forming of particles .From felt or batt .Agitating to form larger particles (i.e., accretion or agglomeration) .With subsequent cutting, grooving, breaking, or comminuting .With reshaping or surface embossing of formed article .Plural, intermittent pressure applying |
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| 553 554 555 556 557 558 559 560 561 562 563 564 | vulcanizationIncluding use of vacuumIncluding use of male mold part which determines the final shape of at least a portion of the work .Production of continuous or running lengthBy casting on to a cooled rollIncluding liquid contactIncluding internal liquid contactWith downward movement of workpieceWith calibration, mandrel forming or with internal guideContact with liquid coagulant or reactive liquidWith immersion in liquid bathProducing a tubular productIncluding deformation by application of fluid pressure | 110 112 113 114 115 116 117 118 | MATERIAL FORMING ARTICLES BY UNITING RANDOMLY ASSOCIATED PARTICLES .Mica particles .Stratified or layered articles .Plural layers formed by uniting randomly associated particles .Utilizing centrifugal force .With liberating or forming of particles .From felt or batt .Agitating to form larger particles (i.e., accretion or agglomeration) .With subsequent cutting, grooving, breaking, or comminuting .With reshaping or surface embossing of formed article .Plural, intermittent pressure applying |
| 553 554 555 556 557 558 559 560 561 562 563 | vulcanizationIncluding use of vacuumIncluding use of male mold part which determines the final shape of at least a portion of the work .Production of continuous or running lengthBy casting on to a cooled rollIncluding liquid contactIncluding internal liquid contactWith downward movement of workpieceWith calibration, mandrel forming or with internal guideContact with liquid coagulant or reactive liquidWith immersion in liquid bathProducing a tubular productIncluding deformation by application of fluid pressureWith internal gas bearing or | 110 112 113 114 115 116 117 118 | MATERIAL FORMING ARTICLES BY UNITING RANDOMLY ASSOCIATED PARTICLES .Mica particles .Stratified or layered articlesPlural layers formed by uniting randomly associated particles .Utilizing centrifugal force .With liberating or forming of particlesFrom felt or batt .Agitating to form larger particles (i.e., accretion or agglomeration) .With subsequent cutting, grooving, breaking, or comminuting .With reshaping or surface embossing of formed article .Plural, intermittent pressure applying .Projecting particles in a moving |
| 553 554 555 556 557 558 559 560 561 562 563 564 565 | vulcanizationIncluding use of vacuumIncluding use of male mold part which determines the final shape of at least a portion of the work .Production of continuous or running lengthBy casting on to a cooled rollIncluding liquid contactIncluding internal liquid contactWith downward movement of workpieceWith calibration, mandrel forming or with internal guideContact with liquid coagulant or reactive liquidWith immersion in liquid bathProducing a tubular productIncluding deformation by application of fluid pressureWith internal gas bearing or mandrel | 110 112 113 114 115 116 117 118 119 120 121 | MATERIAL FORMING ARTICLES BY UNITING RANDOMLY ASSOCIATED PARTICLES .Mica particles .Stratified or layered articlesPlural layers formed by uniting randomly associated particles .Utilizing centrifugal force .With liberating or forming of particlesFrom felt or batt .Agitating to form larger particles (i.e., accretion or agglomeration) .With subsequent cutting, grooving, breaking, or comminuting .With reshaping or surface embossing of formed article .Plural, intermittent pressure applying .Projecting particles in a moving gas stream |
| 553 554 555 556 557 558 559 560 561 562 563 564 | vulcanizationIncluding use of vacuumIncluding use of male mold part which determines the final shape of at least a portion of the work .Production of continuous or running lengthBy casting on to a cooled rollIncluding liquid contactIncluding internal liquid contactWith downward movement of workpieceWith calibration, mandrel forming or with internal guideContact with liquid coagulant or reactive liquidWith immersion in liquid bathProducing a tubular productIncluding deformation by application of fluid pressureWith internal gas bearing or mandrelWith application of external | 110 112 113 114 115 116 117 118 119 120 121 | MATERIAL FORMING ARTICLES BY UNITING RANDOMLY ASSOCIATED PARTICLES .Mica particles .Stratified or layered articlesPlural layers formed by uniting randomly associated particles .Utilizing centrifugal force .With liberating or forming of particlesFrom felt or batt .Agitating to form larger particles (i.e., accretion or agglomeration) .With subsequent cutting, grooving, breaking, or comminuting .With reshaping or surface embossing of formed article .Plural, intermittent pressure applying .Projecting particles in a moving gas stream .Utilizing diverse solid |
| 553 554 555 556 557 558 559 560 561 562 563 564 565 | vulcanizationIncluding use of vacuumIncluding use of male mold part which determines the final shape of at least a portion of the work .Production of continuous or running lengthBy casting on to a cooled rollIncluding liquid contactIncluding internal liquid contactWith downward movement of workpieceWith calibration, mandrel forming or with internal guideContact with liquid coagulant or reactive liquidWith immersion in liquid bathProducing a tubular productIncluding deformation by application of fluid pressureWith internal gas bearing or mandrel | 110 112 113 114 115 116 117 118 119 120 121 122 | MATERIAL FORMING ARTICLES BY UNITING RANDOMLY ASSOCIATED PARTICLES .Mica particles .Stratified or layered articlesPlural layers formed by uniting randomly associated particles .Utilizing centrifugal force .With liberating or forming of particlesFrom felt or batt .Agitating to form larger particles (i.e., accretion or agglomeration) .With subsequent cutting, grooving, breaking, or comminuting .With reshaping or surface embossing of formed article .Plural, intermittent pressure applying .Projecting particles in a moving gas stream .Utilizing diverse solid particles |

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| 124 | By activating naturally | 153 | .Punching article from sheet |
|------|-------------------------------------|--------|---|
| | occurring binder (e.g., cork, etc.) | 154 | <pre>material .Making hole or aperture in</pre> |
| 125 | Sintering or heat fusing | | article |
| | particles | 155 | By punching or drilling |
| 126 | Of organic material | 156 | Plurality of holes |
| 127 | Fluorocarbon resin | 157 | .Dividing work to form plural |
| 128 | .Liquid binder applied subsequent | | articles |
| | to particle assembly | 158 | Shaving or slicing sheets from |
| 129 | WITH PRINTING OR COATING OF | | work block |
| | WORKPIECE (OUT OF MOLD) | 159 | Tubular work |
| 130 | .Anti-stick or adhesion | 160 | Sheet or web work |
| | preventing coating | 161 | .Flash or sprue removal type |
| 131 | .Coating with particulate | 162 | .Surface finishing (e.g., |
| | material | 102 | abrading, grinding, etc.) |
| 132 | .Applying indicia or design | 163 | .Simultaneous severing and |
| 132 | (e.g., printing, etc.) | 105 | shaping, or severing while |
| 133 | .Applied to clay, sand, or | | work remains on shaping |
| 133 | earthen workpiece | | surface |
| 134 | .Coating or impregnating | 164 | UNCONFINED DRAWING OR EXTENDING |
| 134 | workpiece before molding or | 104 | OF A PLASTIC MASS TO MAKE |
| | shaping step | | ARTICLE |
| 125 | | 165 | FORMING CONTINUOUS OR INDEFINITE |
| 135 | Molding material against and | 102 | |
| | uniting to the coated or | 1.00 | LENGTH WORK |
| 126 | impregnated workpiece | 166 | .With mold element formation or |
| 136 | Impregnation of batt, sheet, or | 1.68 | removal |
| 100 | filament | 167 | .Of varying cross-sectional area |
| 137 | Heat settable impregnant | | or with intermittent cross- |
| 138 | WITH SEVERING, REMOVING MATERIAL | 1.60 | sectional irregularity |
| | FROM PREFORM MECHANICALLY, OR | 168 | .With crimping or crinkling of |
| | MECHANICALLY SUBDIVIDING | | strands of filaments |
| 120 | WORKPIECE | 169 | .With prevention of equipment |
| 139 | Removing surface portion of | | fouling accumulations or |
| | composite workpiece to expose | 1.70 | deposits |
| 1.40 | substrate | 170 | By chemical additive to molding |
| 140 | .To form particulate product | | material or treating bath |
| | (e.g., flakes, etc.) | 171.1 | .Layered, stratified traversely |
| 141 | Subsequent to extruding step | | of length, or multiphase |
| 142 | By cutting at point of | | macrostructure containing |
| | extrusion | | material (e.g., conjugate, |
| 143 | From strands | | composite, islands-in-sea, |
| 144 | From continuously cast material | | core-sheath, etc.) |
| 145 | .Forming continuous work followed | 171.11 | Including extrusion on or about |
| | by cutting | | plural discrete end-to-end or |
| 146 | Slitting longitudinally | | discrete side-by-side preforms |
| 147 | Of web to form plurality of | | (e.g., definite length |
| | threads | | <pre>preform, etc.)</pre> |
| 148 | Extruding followed by cutting | 171.12 | Hollow preform |
| | to length | 171.13 | Utilizing indefinite length |
| 149 | Extruding around moving | | preform |
| | preform | 171.14 | Of metal |
| 150 | Extruding hollow product | 171.15 | Natural rubber or |
| 151 | With shaping between extruding | | thermosetting resin containing |
| | and cutting steps | | layer |
| 152 | .Cutting and uniting cut parts | | |
| 100 | . catching and anifoling cat pares | | |

| 171.16 | <pre>Utilizing plural metal preforms (e.g., twisted,</pre> | 172.16 | Into liquid bath (e.g., wet- spinning, etc.) |
|--------|---|--------|---|
| | spiral, etc.) | 172.17 | Melt-spinning |
| 171.17 | Shaping of plural layers on preform | 172.18 | <pre>Polyamide (e.g., nylon, etc.) or addition polymer of at</pre> |
| 171.18 | Sequential shaping of layers | | least one monoethylenically |
| 171.19 | Including upstream mixing | | unsaturated monomer (e.g., |
| 171.2 | Producing coiled or helical containing structure or layer | | <pre>polyethylene, polypropylene, polystyrene, etc.) containing</pre> |
| 171.21 | Producing ribbon, tape, or | | layer |
| | sheet (e.g., extrusion, etc.) | 172.19 | Producing indefinite length |
| 171.22 | Including preheating of metal preform | | <pre>article by depositing material on endless forming surface (e.g., endless belts, rollers,</pre> |
| 171.23 | Shaping of polyamide (e.g., | | etc.) |
| | nylon, etc.) or addition | 173.1 | Including roller-type shaping |
| | <pre>polymer of at least one monoethylenically unsaturated monomer (e.g., polyethylene,</pre> | 173.1 | surface (e.g., calendering, etc.) |
| | polypropylene, polystyrene, | 173.11 | Having three or more layers of |
| | etc.) containing layer on preform | | at least two different compositions |
| 171.24 | Shaping of natural rubber or | 173.12 | Melt extrusion (e.g., co- |
| | thermosetting resin containing | | extrusion, etc.) |
| | layer on preform (e.g. | 173.13 | Vinylidene chloride or |
| | elastomers, etc.) | | fluoride containing layer |
| 171.25 | Shaping of a natural resinous | 173.14 | Polyamide (e.g., nylon, etc.) |
| | <pre>layer on preform (e.g., cellulosic, etc.)</pre> | | or addition polymer of at least one monoethylenically |
| 171.26 | Producing hollow composite | | unsaturated monomer (e.g., |
| 171.27 | Having three or more layers of at least two different materials | | <pre>polyethylene, polypropylene, polystyrene, etc.) containing layer</pre> |
| 171.28 | Polyamide (e.g., nylon,, etc.) | 173.15 | Including subsequent |
| 171.20 | or addition polymer of at least one monoethylenically | | reshaping (e.g., stretching, etc.) |
| | unsaturated monomer (e.g., | 173.16 | Melt co-extrusion (e.g., two |
| | polyethylene, polypropylene, | | layers, etc.) |
| | polystyrene, etc.) containing | 173.17 | Having particular noncircular |
| | layer | | cross-section (e.g., T- |
| 171.29 | Including rotation of shaping | | configured, etc.) |
| | surface or material being shaped | 173.18 | Having colorant added to material to be shaped or |
| 172.1 | Having particular noncircular cross-section (e.g., T- | 152 10 | producing two diverse colored layers |
| | configured, etc.) | 173.19 | Polyamide (e.g., nylon, etc.) |
| 172.11 | <pre>Producing composite strand, filament, or thread</pre> | | or addition polymer of at least one monoethylenically |
| 172.12 | <pre>Having particular noncircular cross-section (e.g., T- configured, etc.)</pre> | | <pre>unsaturated monomer (e.g., polyethylene, polypropylene, polystyrene, etc.) containing</pre> |
| 172.13 | Islands-in-sea (i.e., | | layer |
| | discontinuous phase in | 174.1 | Styrene polymer containing |
| | continuous phase) | 174.11 | Natural rubber or elastomer |
| 172.14 | Side-by-side | | containing layer |
| 172.15 | Sheath-core | 175 | .By calendering |
| | | 176.1 | .Shaping by extrusion |
| | | | |

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| 177.1 | To produce particular cross | 198 | Mechanical treatment of |
|--------|---|-------|--|
| | section (e.g., noncircular, | | articles (e.g, stretching, |
| 177.11 | etc.) | 199 | <pre>folding, deforming, etc.)Cupro ammonium cellulose</pre> |
| 1//.11 | Nonresinous material only (e.g., ceramic, soap, | 200 | Cellulose acetate |
| | cellulose, glue, etc.) | 200 | Natural rubber containing |
| 177.12 | Honeycomb | 201 | extrudant |
| 177.13 | Filament (e.g., T-configured, | 202 | Protein containing extrudant |
| 177.13 | dog-bone, trilobal, etc.) | 203 | Liquid is solvent extractive |
| 177.14 | Hollow or tubular work | 178 F | Filaments |
| | produced | 204 | Solidifying by evaporation of |
| 177.15 | Capillary passages (e.g., | 201 | liquid solvent or liquid |
| | pen nibs, writing tips, etc.) | | carrier |
| 177.16 | Die configuration (other than | 205 | Synthetic resin containing |
| | fixed orifice shape) | | spinning solutions |
| 177.17 | Processing or treatment after | 206 | Polyacrylonitrile |
| | extrusion (e.g., support, | 207 | Cellulose derivative |
| | guide, etc.) | 208 | With stretching of formed |
| 177.18 | Chemical | | article |
| 177.19 | Temperature specified (other | 209.1 | Hollow article |
| | than ambient) | 209.2 | Including rotational or |
| 177.2 | With reinforcement filler, or | | translational movement of a |
| | additive | | material shaping member |
| 178 R | Into a liquid bath | 209.3 | Reshaping product (extrudate) |
| 179 | With purifying or replenishing | | subsequent to extrusion |
| 100 | of bath | 209.4 | Sizing to desired dimension |
| 180 | Liquid of bath is in motion | 209.5 | Stretching extruded material |
| 181 | With stretching in bath of extruded article | 209.6 | Curing or polymerizing |
| 182 | | | operation during extrusion |
| 102 | Polyacrylonitrile containing extrudant | | <pre>(e.g., cross-linking, vulcanizing, etc.)</pre> |
| 183 | Reactive bath | 209.7 | At least two distinct |
| 184 | Synthetic resin containing | 200.7 | operational temperatures |
| 104 | extrudant | | employed during the extrusion |
| 185 | Polyvinyl alcohol containing | | operation |
| 186 | Carbohydrate containing | 209.8 | Providing special flow channel |
| | extrudant | | feature (e.g., varying |
| 187 | Cellulose derivatives | | dimension of flow channel or |
| 188 | Viscose | | varying direction of flow of |
| 189 | Bath contains organic | | material in the extruder, |
| | compound | | etc.) |
| 190 | Carbohydrate or protein | 210.1 | And reshaping |
| 191 | Extrudant contains added | 210.2 | Including a step other than |
| | organic compound | | application or removal of |
| 192 | Sulfur containing organic | 210.3 | tension |
| | compound | 210.3 | With application of agent other than water or air to |
| 193 | Polyethers (e.g., | | workpiece |
| | oxyalkylated compounds, etc.) | 210.4 | During or after final shape |
| 194 | Nitrogen containing | 210.4 | change |
| | organic compound | 210.5 | With temperature gradient |
| 195 | Subsequent chemical | | across cross-section of |
| 100 | treatment of formed articles | | workplace or heat treatment |
| 196 | Plural step coagulating or | | after all shaping |
| 107 | regenerating | | |
| 197 | With stretching | | |

| 210.6 | With processing before | 221 | With destruction of pattern or |
|---------------------|---|-------|---|
| | extrusion or inclusion of | | mold to dissociate |
| | additive | 222 | Anatomical surface (i.e., using |
| 210.7 | Plural stretching steps or | | body area as an impression |
| | stages | | pattern) |
| 210.8 | Of filament | 223 | Pedal |
| 211 | Utilizing added agent (e.g., | 224 | With flexible inversion of a |
| | flux, plasticizer, dispersing | | forming surface |
| | agent, etc.) | 225 | Forming mold from fluent |
| 211.1 | Centripetal extrusion | | material |
| 211.11 | Nonresinous material only | 226 | With initial molding or |
| | (e.g., ceramic, soap, | | treating of a surface to be |
| | cellulose, etc.) | | reproduced |
| 211.12 | Processing or treatment after | 227 | Developing a surface negative |
| | extrusion | | and then a surface positive |
| 211.13 | Contact of extrudate with | | mold |
| | fluid other than ambient air | 228 | FORMING STRESSED CONCRETE |
| 211.14 | Filament (e.g., fiber, etc.) | | ARTICLES |
| 211.15 | Plural treatment stages of | 229 | PRESTRESSING SOLID BODY AND |
| 211.13 | zones | | UNITING IN STRESSED CONDITION |
| 211.16 | Extractive fluid or effects | 230 | UTILIZING HEAT RELEASABLE STRESS |
| 211.10 | reaction | 250 | TO RESHAPE SOLID WORKPIECE |
| 211.17 | Heating | | (E.G., ELASTIC MEMORY, ETC.) |
| 211.17 | Plural treatment stages or | 231 | APPLYING TENSILE STRESS TO |
| 211.10 | zones | 231 | WORKPIECE DURING HEAT CURING |
| 211.19 | Extractive fluid or effects | 232 | DISPARATE TREATMENT OF ARTICLE |
| | reaction | | SUBSEQUENT TO WORKING, |
| 211.2 | Heating | | MOLDING, OR SHAPING |
| 211.21 | Screw extruder or screw feeder | 233 | .Washing of article |
| 211.21 | device | 234 | .Effecting temperature change |
| 211.22 | Filament (e.g., fiber, etc.) | 235 | Annealing |
| 211.23 | Plural screws, plural | 235.6 | After stretching running or |
| 211.25 | extruders, or plural stage | 200.0 | indefinite length work |
| | extruder | 235.8 | Biaxial stretching of film |
| 211.24 | Curing or polymerization in the | 236 | Completing vulcanization or |
| 211,24 | extruder (includes incomplete | 230 | polymerization |
| | polymerization or curing, or | 237 | Cooling |
| | coagulating rubber) | 238 | COMBINED |
| 212 | .By casting liquids on a solid | 239 | MECHANICAL SHAPING OR MOLDING TO |
| | supporting or shaping surface | 233 | FORM OR REFORM SHAPED ARTICLE |
| 213 | Utilizing surface parting, | 240 | Separately introducing reacting |
| 213 | anti-stick or release agent | 210 | materials into mold |
| 214 | To form nonplanar article or | 241 | .To produce composite, plural |
| | surface | 211 | part or multilayered article |
| 215 | By dipping the forming surface | 242 | Joining parts for relative |
| 213 | into the forming material | 242 | movement |
| 216 | Rubber or synthetic resin | 243 | Bristled or tufted article |
| 210 | containing liquid | 243 | making |
| 217 | Carbohydrate containing liquid | 244 | 5 |
| 218 | | 244 | Uniting shoe part to upper |
| 210 | Solidifying by applied reagent WITH STEP OF MAKING MOLD OR MOLD | 245 | Multicolored surface |
| ∠ ⊥ <i>J</i> | SHAPING, PER SE | 246 | One component self-sustaining |
| 220 | .Utilizing surface to be | 247 | prior to compositingPositioning component in mold |
| Z Z U | OF THE SUIT ACE TO DE | | POSTITORING COMPONERS IN MOTO |
| | _ | 247 | rosicioning component in mora |
| | reproduced as an impression pattern | 247 | rosicioning component in mora |

264 - 14 CLASS 264 PLASTIC AND NONMETALLIC ARTICLE SHAPING OR TREATING: PROCESSES

| only Mechanically securing parts together by reshaping joint portion only Sy separately molding different article portions along sheet edge 325 | 248 | Fusion bonding of preformed bodies and shaping at joint | 272.11 | Electrical component encapsulating |
|--|------------|---|--------|------------------------------------|
| 249 | | | 272.12 | |
| article portions 272.14Plural electrical components 272.15Spaced molded portions interconnected by solid preformMolding portions along sheet edgeMolding portions along sheet edgeBuilding unit having spaced wallsSeparate stage covering of different preform areas 272.18Sequential formation of portion on same mold or a preform surfaceMitilizing clay, sand, or calcaracous slurry 272.21Battery or part encapsulated calcareous slurry 272.21Battery or part encapsulated superposed fibrous or textile layersShaping material and uniting to a preform 276Dynamoelectric machine, electromagnet, transformer inductors, or coilsDynamoelectric machine, electromagnet, transformer inductors, or coilsDetection preformDetection preformDetection preformDetection preform relative to mold surfaceDetection of preform relative to mold surfaceDetection of preformDetection in spaced relationship surrounded by shaped material to preformDetection is completely surrounded by shaped material to preformDetection in spaced relationship surrounded by shaped materialDetection in completeDetection in completeDetection in completeDetection in completeDetection in completeDetectionDetection in completeDetection in completeDetection in completeDetectionDetection in completeDetectionDetection in completeDetectionDetectionDetectionDetectionDetectionDetectionDetectionDetection | 249 | together by reshaping joint | 272.13 | procedure or treatment to |
| Spaced molded portions interconnected by solid preform Spacedure or incorporation of preform Spacedure or incorporation of preform Spacedure or incorporation of article positioning means | 250 | | 050 14 | _ |
| interconnected by solid perform 252 | 0.51 | - | | |
| 252Molding portions along sheet edge core edge or space discharge device 272.17Semiconductor or barrier layer device (e.g., integrated circuit, transistor, etc.) different preform areas 272.18Condenser or resistor 272.19Dynamoelectric machine, electromagnet, transformer inductors, or coilsWitlizing clay, sand, or calcareous slurry 272.21Battery or part encapsulated circuit, before inductors, or coilsWhotor or part encapsulated calcareous slurry 272.21Shaped material extends through holes in preform 273Shaped material extends through holes in preform 274Preform particularly provided with means to provide interlock with shaped material and uniting to preform 275Positioning or maintaining position of preform relative to mold surface introducing fluent material 278By removable means therebetween 279Applying fluent material to preform 270Preform is completely surrounded by shaped material 280By removable means length work 281Digitudinally advanced coiling material and reshaping preform 282Ey doctoring from drum | 721 | interconnected by solid | 2/2.15 | procedure or incorporation of |
| walls Separate stage covering of different preform areas 272.18 Sequential formation of 272.19 Sequential formation of 272.19 Sequential formation of 272.19 Dynamoelectric machine, electromagnet, transformer inductors, or coils 256 Utilizing clay, sand, or 272.21 Motor or part encapsulated calcareous slurry 272.21 257 One component is a fibrous or textile sheet, web, or batt 274 258 Joining a plurality of 274 Dreform particularly provided with means to provide interlock with shaped material and uniting to a preform 275 259 Shaping material and uniting to 276 Dreform 277 261 Uniting spaced preforms, by introducing fluent material 278 Doining preforms 279 262 Concentric preforms 279 263 To unite independent 279 Preventing adherence of shaped material to preform 280 Preventing adherence of shaped material to preform 281 Dreform is completely surrounded by shaped material length work 281 Preventing or rinkling material and reshaping preform 283 By doctoring from drum | 252 | edge | 272.16 | or space discharge device |
| different preform areas 272.18Condenser or resistor 255Sequential formation of portion on same mold or a preform surface electromagnet, transformer inductors, or coils 256Utilizing clay, sand, or 272.2Motor or part encapsulated calcareous slurry 272.21Battery or part encapsulated calcareous slurry 272.21Battery or part encapsulated through holes in preform surface superposed fibrous or textile sheet, web, or batt through holes in preform 274Preform particularly provided superposed fibrous or textile layers 275Preform particularly provided with means to provide interlock with shaped material 276Positioning or maintaining a preform 277Maintaining preform relative to mold surface materials and uniting to preform 277Maintaining preforms in spaced relationship introducing fluent material 278By removable means therebetween 279Applying fluent material to preform 279.1Preform is completely contacting preforms 279.1Preform is completely surrounded by shaped material length work | | walls | 272.17 | layer device (e.g., integrated |
| 255Sequential formation of portion on same mold or a preform surface 256Utilizing clay, sand, or 272.21Battery or part encapsulated calcareous slurry 272.21Battery or part encapsulated textile sheet, web, or batt textile sheet, web, or batt superposed fibrous or textile layers 259 .Shaping material and uniting to a preform aterials and uniting to preform 276Preventing flash preform 277Maintaining preforms atherebetween 279Applying fluent material to preform 279Applying fluent material to preform 279Applying fluent material to preform 270Preventing adherence of shaped material and reshaping preform 280Simultaneously shaping material and reshaping preform 281Desitudinally advanced coiling from drum 282Eyening or crinkling material and reshaping preform 283By doctoring from drum | 254 | | | |
| portion on same mold or a preform surface inductors, or coils 256Utilizing clay, sand, or calcareous slurry 272.21Battery or part encapsulated calcareous slurry 272.21Battery or part encapsulated textile sheet, web, or batt through holes in preform 258Joining a plurality of tayers 259Shaping material and uniting to a preform 270Preform particularly provided with means to provide interlock with shaped material or mold surface interlock with shaped material or materials and uniting to preform 277Maintaining preforms in spaced relationship introducing fluent material 278By removable means therebetween 279Applying fluent material to preform 279Applying fluent material to preform 279Preform is completely contacting preforms 280Preventing adherence of shaped material to preform 281Preform is completely work 282Conditioning or treatment of preform 282Coreping or crinkling material and reshaping preform 283By doctoring from drum | | - | | |
| preform surface inductors, or coils 156Utilizing clay, sand, or calcareous slurry 272.21Motor or part encapsulated calcareous slurry 272.21Battery or part encapsulated calcareous slurry 272.21Battery or part encapsulated 273Shaped material extends through holes in preform 274Preform particularly provided superposed fibrous or textile layers 274Preform particularly provided with means to provide interlock with shaped material 259Positioning or maintaining position of preform relative to mold surface materials and uniting to 276Preventing flash preform 277Maintaining preforms in spaced relationship introducing fluent material 278By removable means therebetween 279Applying fluent material to preform 279.1Preform is completely contacting preforms 279.1Preform is completely surrounded by shaped material 280Preventing adherence of shaped material to preform 281 | 255 | _ | 272.19 | _ |
| 256Utilizing clay, sand, or calcareous slurry 272.21Motor or part encapsulated 257One component is a fibrous or 273Shaped material extends textile sheet, web, or batt through holes in preform 274Preform particularly provided superposed fibrous or textile layers 275Positioning or maintaining a preform 276Positioning or maintaining position of preform relative to mold surface to mold surface introducing fluent materials and uniting to 276Maintaining preforms in spaced relationship introducing fluent material 278By removable means therebetween 279Applying fluent material to preform 279.1Preform is completely surrounded by shaped material 280Preventing adherence of shaped material to preform 281Digitudinally advanced coiling preform 282Conditioning or treatment of preform 283By doctoring from drum | | - | | <u> </u> |
| calcareous slurry 272.21Battery or part encapsulated 257One component is a fibrous or textile sheet, web, or batt through holes in preform 258Joining a plurality of 274Preform particularly provided superposed fibrous or textile layers Positioning or maintaining or a preform 275Positioning or maintaining position of preform relative to mold surface materials and uniting to 276Preventing flash preform 277Maintaining preforms in spaced relationship introducing fluent material 278By removable means therebetween 279Applying fluent material to preform 279.1Preform is completely contacting preforms 280Conditioning or treatment of preform 281Distinguishing or indefinite-material to preform 282Conditioning or treatment of preform 282Simultaneously shaping material and reshaping preform 283By doctoring from drum | 256 | - | 272 2 | |
| 257One component is a fibrous or textile sheet, web, or batt through holes in preform 258Joining a plurality of superposed fibrous or textile layers interlock with shaped material 259Shaping material and uniting to a preform aprecious of preform position of preform relative to mold surface materials and uniting to preform 277Preventing flash preform 277Maintaining preforms in spaced preforms, by introducing fluent material 278By removable means therebetween 279Applying fluent material to preform 279.1Preform is completely contacting preforms 279.1Preform is completely surrounded by shaped material contacting preform 280Conditioning or treatment of preform (nonplanar) 260Simultaneously shaping 282Creping or crinkling material and reshaping preform 283By doctoring from drum | 250 | | | |
| textile sheet, web, or batt Joining a plurality of superposed fibrous or textile layers Shaping material and uniting to a preform 259Shaping material and uniting to a preform 260Co-molding plural fluent materials and uniting to preform 277Maintaining preforms in spaced relationship introducing fluent material and therebetween and therebetween are contacting preforms 279Spy removable means thereform and preforms are contacting preforms 279Preform is completely surrounded by shaped material and enterial to preform and surface preform are contacting preforms 279Preform is completely surrounded by shaped material and reshaping preform and contacting preform and cont | 257 | | | |
| 258Joining a plurality of superposed fibrous or textile layers 274 with means to provide interlock with shaped material 259Shaping material and uniting to a preform position of preform relative to mold surface materials and uniting to 276Preventing flash preform 277Maintaining preforms in spaced relationship introducing fluent material 278By removable means therebetween 279Applying fluent material to preform 279.1Preform is completely contacting preforms 279.1Preform is completely surrounded by shaped material 280Preventing adherence of shaped material to preform 281Disjutudinally advanced coiling preform 282Simultaneously shaping 282Creping or crinkling material and reshaping preform 283By doctoring from drum | _0, | <u>-</u> | 2,3 | |
| superposed fibrous or textile layers Shaping material and uniting to a preform 260 Co-molding plural fluent preform 277 Commoding spaced preforms, by spaced relationship introducing fluent material 278 Commodition preforms 279 Commodition preforms 279 Complying fluent material to preform 279 Contacting preforms 279 Contacting preforms 279 Conditioning or textile independent material to preform 280 Conditioning or treatment of preform 281 Complanar) Coreping or crinkling material and reshaping preform 282 Coreping or crinkling Coreping from drum | 258 | | 274 | - |
| 259Shaping material and uniting to a preform position of preform relative to mold surface materials and uniting to preform 277Preventing flash preform 277Maintaining preforms in spaced relationship introducing fluent material 278By removable means therebetween 279Applying fluent material to preform 279Preform is completely contacting preforms 279.1Preform is completely surrounded by shaped material 279Preform is completely surrounded by shaped material 279Preform is completely surrounded by shaped material 279.1Preform 279.1Pr | | superposed fibrous or textile | | with means to provide |
| materials and uniting to preform 277Preventing flash preform 277Maintaining preforms in spaced relationship introducing fluent material 278By removable means therebetween 279Applying fluent material to preform 279.1Preform is completely contacting preforms 279.1Preform is completely surrounded by shaped material 280Preventing adherence of shaped 280Preventing or indefinite-material to preform 281Conditioning or treatment of 281Dengitudinally advanced coiling preform 282Simultaneously shaping 282Creping or crinkling material and reshaping preform 283By doctoring from drum | 259 | | 275 | |
| preform 277Maintaining preforms in spaced relationship introducing fluent material 278By removable means therebetween 279Applying fluent material to preform 279.1Preform is completely contacting preforms 279.1Preform is completely surrounded by shaped material 284Preventing adherence of shaped 280 .Reshaping running or indefinite-material to preform length work 265Conditioning or treatment of 281Longitudinally advanced coiling preform (nonplanar) 282Creping or crinkling material and reshaping preform 283By doctoring from drum | 260 | Co-molding plural fluent | | to mold surface |
| 261Uniting spaced preforms, by spaced relationship introducing fluent material 278By removable means therebetween 279Applying fluent material to preform 263To unite independent 279.1Preform is completely contacting preforms surrounded by shaped material 264Preventing adherence of shaped 280 .Reshaping running or indefinite-material to preform length work 265Conditioning or treatment of 281Longitudinally advanced coiling preform (nonplanar) 282Creping or crinkling material and reshaping preform 283By doctoring from drum | | materials and uniting to | 276 | Preventing flash |
| introducing fluent material 278By removable means therebetween 279Applying fluent material to preform 263Concentric preforms 279.1Preform is completely contacting preforms 279.1Preform is completely surrounded by shaped material 264Preventing adherence of shaped 280 .Reshaping running or indefinite-material to preform length work 265Conditioning or treatment of preform (nonplanar) 281Engitudinally advanced coiling preform 282Creping or crinkling material and reshaping preform 283By doctoring from drum | | - | 277 | |
| therebetween 279Applying fluent material to preform 262Concentric preforms 279.1Preform is completely contacting preforms 279.1Preform is completely surrounded by shaped material 264Preventing adherence of shaped material to preform 280Conditioning or treatment of length work 265Conditioning or treatment of preform (nonplanar) 281Simultaneously shaping 282Creping or crinkling material and reshaping preform 283By doctoring from drum | 261 | | | |
| 262Concentric preforms preform 263To unite independent contacting preforms 264Preventing adherence of shaped material to preform 265Conditioning or treatment of preform 266Simultaneously shaping material and reshaping preform 279.1Preform is completely surrounded by shaped material 280Reshaping running or indefinite-length work 281Longitudinally advanced coiling (nonplanar) 282Creping or crinkling 283By doctoring from drum | | _ | | - |
| 263To unite independent 279.1Preform is completely surrounded by shaped material 264Preventing adherence of shaped material to preform 280Conditioning or treatment of preform (nonplanar) 265Simultaneously shaping 282Creping or crinkling material and reshaping preform 283By doctoring from drum | 262 | | 279 | |
| contacting preforms surrounded by shaped material 264Preventing adherence of shaped 280 .Reshaping running or indefinite- material to preform length work 265Conditioning or treatment of 281Longitudinally advanced coiling preform (nonplanar) 266Simultaneously shaping 282Creping or crinkling material and reshaping preform 283By doctoring from drum | | - | 0.00 | - |
| 264Preventing adherence of shaped 280 .Reshaping running or indefinite- material to preform length work 265Conditioning or treatment of 281Longitudinally advanced coiling preform (nonplanar) 266Simultaneously shaping 282Creping or crinkling material and reshaping preform 283By doctoring from drum | 263 | - | 279.1 | |
| material to preform length work Conditioning or treatment of 281Longitudinally advanced coiling preform (nonplanar) Simultaneously shaping 282Creping or crinkling material and reshaping preform 283By doctoring from drum | 264 | | 200 | |
| 265Conditioning or treatment of 281Longitudinally advanced coiling preform (nonplanar) 266Simultaneously shaping 282Creping or crinkling material and reshaping preform 283By doctoring from drum | 204 | | 280 | |
| preform (nonplanar) 266Simultaneously shaping 282Creping or crinkling material and reshaping preform 283By doctoring from drum | 265 | - | 281 | 3 |
| 266Simultaneously shaping 282Creping or crinkling material and reshaping preform 283By doctoring from drum | 203 | | 201 | |
| material and reshaping preform 283By doctoring from drum | 266 | Simultaneously shaping | 282 | - |
| | | material and reshaping preform | 283 | |
| 201 1,202012113 0110 2412400 01121 | 267 | Against inner surface of | 284 | Deforming the surface only |
| hollow preform 285Bending | | hollow preform | 285 | Bending |
| 268Cap or cup-like preform 286Corrugating | 268 | | 286 | Corrugating |
| (e.g., container closure, 287And subsequent reshaping of etc.) corrugated material | | | 287 | |
| 269Cavity lining type 288.4Stretching by applying tension | | | 288.4 | |
| 270Utilizing centrifugal force 288.8Nonuniform product (e.g., | 270 | | 288.8 | Nonuniform product (e.g., |
| (e.g., pipe lining, etc.) porous, etc.) or with | 0.55 | | | porous, etc.) or with |
| 271.1Preform embedded in or tensioning before application surrounded by shaped material of heat | 271.1 | | | |

| 289.3 | With treatment other than heating before stretching | 304 | Facilitating removal of article from form |
|-------|---|-------|---|
| 289.6 | With shrinking or with liquid | 305 | Successive dipping steps into |
| | contact during or after | 225 | same material |
| | stretching | 306 | Conditioning or treating |
| 290.2 | Biaxial or transverse to | | material or form to effect |
| | travel direction | 0.00 | deposition |
| 290.5 | Of filament | 307 | Treating accreted material on |
| 290.7 | Including contact with | | form with added agent or |
| | mechanism in stretch path | | reactant |
| | (e.g., snubbing, etc.) | 308 | Incremental layer molding type |
| 291 | .Stretching or stretch forming | 309 | Spraying or flinging material |
| 292 | By drawing over a form | | against a shaping surface |
| 293 | .Deforming the surface only | 310 | By rotation of material or |
| 294 | .Plural sequential shaping or | | material shaping member |
| | molding steps on same | 311 | Utilizing centrifugal force |
| | workpiece | 312 | Inner relatively rotating |
| 295 | Molding followed by bending or | | member to form hollow article |
| | twisting | 313 | Utilizing a flexible, |
| 296 | One step reshapes portion only | | deformable, or destructable |
| | of article | | molding surface or material |
| 297.1 | .Forming plural articles | 314 | Utilizing fluid-expansible |
| 297.2 | Including introducing material | | mold |
| | under pressure into a closed | 315 | Toroidal mold bag |
| | mold cavity (e.g., injection | 316 | Utilizing sheet-like material |
| | molding, etc.) | 317 | Removing mold by destruction |
| 297.3 | With plural molds on belt or | 318 | Molding trapped undercut |
| | turntable | | article portion |
| 297.4 | Forming multiple stacked or | 319 | Applying heat or pressure |
| | nested articles or including | 320 | Reshaping solid work or |
| | multilayer pressing | | introducing solid work into |
| 297.5 | Reshaping or treatment of a | | mold cavity |
| | <pre>preform (e.g., vulcanizing,</pre> | 321 | Sponge-like or foamed work |
| | etc.) | 322 | Initially softening workpiece |
| 297.6 | With plural molds on a moving | 323 | Sliding motion between |
| | surface | | material and mold surface |
| 297.7 | With linear movement of the | | (extruding finite articles) |
| | molds | 324 | Woven or felted sheet-form |
| 297.8 | Simultaneous formation of | | work |
| | plural articles | 325 | Utilizing closed mold cavity |
| 297.9 | Of primarily inorganic | 326 | Toroidal work (e.g., tire, |
| | material (e.g., concrete or | | etc.) |
| | ceramic, etc.) | 327 | Differential heating or |
| 298 | .By casting on a liquid surface | | cooling in mold |
| 299 | .Shaping against forming surface | 328.1 | Introducing material under |
| | (e.g., casting, die shaping, | | pressure into a closed mold |
| | etc.) | | cavity (e.g., injection |
| 300 | Utilizing release agent in | | molding, etc.) |
| | molding material | 328.2 | Material is nonthermoplastic |
| 301 | Accretion from bulk | 328.3 | Torodial work (e.g., tire, |
| 302 | Slush casting type | | etc.) |
| 303 | Accretion of varying wall | 328.4 | Utilizing a transfer chamber |
| | thickness or control of | 328.5 | With preformed charge |
| | accretion by compound movement | 328.6 | Including mixing of |
| | of form | | reactants |
| | | | |

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| 328.7 | Including changing mold size or shape during injection or | 332 | Fusing or melting inorganic material |
|--------|---|----------------|---|
| | between multiple stages of injection | 333 | Inorganic hydraulic settable material shaping |
| 328.8 | With multiple injectors, mold cavities, or multiple steps of injection of material | 334 | Article or material ejecting, core or mold stripping or separating |
| 328.9 | Including operation or design to minimize formation of gate, sprue, or flash | 335 | By direct fluid pressure or pressure differential |
| 328.11 | Including movement of mold relative to injector | 336 337 | Ejecting or stripping before full set or cure of workUtilizing particular mold |
| 328.12 | Including specified direction or condition of flow in mold | 338 | materialCoating or lining |
| 328.13 | Including injection at two or | 339 | Bending or twisting of work |
| | more pressures | 340 | TREATING SHAPED OR SOLID ARTICLE |
| 328.14 | With heating or cooling | 341 | .Solvent polishing type |
| 328.15 | Of injection nozzle | 341 342 R | .To shrink |
| 328.16 | Of mold | 342 RE | |
| 328.17 | Pretreatment or preparation | 342 KE | Relaxation of running or indefinite length work |
| | of charge material | 343 | .To swell or plasticize |
| 328.18 | <pre>Mixing of filler, dye, or pigment</pre> | 344 | .To remove entrained material from article |
| 328.19 | Including feeding to | 345 | .By a temperature change |
| | accumulator | 346 | To anneal or temper |
| 330 | Organic material shaping | 347 | To complete vulcanization or |
| 331.11 | Synthetic resin containing | | polymerization |
| 331.12 | Polymer having heterocyclic | 348 | To cool |
| | group or polymer derived from monomer having heterocyclic group except heterocyclic derived solely from carboxylic acid (i.e., cyclic imide, lactam, lactone, or anhydride) | 349 CROSS-R | MISCELLANEOUS REFERENCE ART COLLECTIONS |
| 331.13 | <pre>Polymer derived from monomer having at least two ethylenic groups (e.g., ABS rubber, chloroprene, etc.) or with natural rubber</pre> | 900 | DIRECT APPLICATION OF FLUID PRESSURE DIFFERENTIAL TO SHAPE, RESHAPE (I.E., DISTORT), OR SUSTAIN AN ARTICLE OR PREFORM AND HEAT- |
| 331.14 | Fluorine | | SETTING (I.E., CRYSTALLIZING |
| 331.15 | <pre>Ethylenically unsaturated polymer or polymer derived from ethylenically unsaturated</pre> | | OF STRETCHED OR MOLECULARLY ORIENTED PORTION) THEREOF |
| | monomer | 901 | .Heat-setting of stretched or |
| 331.16 | Nitrogen containing polymer | | molecularly oriented article |
| 331.17 | Hydrocarbon polymer | | formed from planar preform |
| 331.18 | Carboxylic acid or | | (e.g., sheet, film, etc.) |
| | derivative (e.g., acrylic, etc.) | 902 903 | .Production of continuous length .Heat-setting and simultaneous |
| 331.19 | Nitrogen containing (e.g., polyamide, polyurethane, etc.) | | differential heating of stretched or molecularly |
| 331.21 | Carboxylic acid or derivative | | oriented section of article or preform |
| 331.22 | Polymer derived from aldehyde | 904 | .Maintaining article in fixed shape during heat-setting |

| 905 | <pre>.Having plural, distinct differential fluid pressure shaping steps</pre> | 921 .By injection molding material recycled from consumer used article or product |
|-----|--|--|
| 906 | And heat-shrinking outside of mold including subsequent re- expanding of shrunken article | and the second of the second o |
| | using differential fluid pressure | FOREIGN ART COLLECTIONS |
| 907 | DIRECT APPLICATION OF FLUID PRESSURE DIFFERENTIAL TO | FOR 000 CLASS-RELATED FOREIGN DOCUMENTS |
| | SHAPE, RESHAPE (I.E., DISTORT), OR SUSTAIN AN ARTICLE OR PREFORM AND CRYSTALLIZING OF NONSTRETCHED OR MOLECULARLY UNORIENTED PORTION THEREOF | Any foreign patents or non-patent literature from subclasses that have been reclassified have been transferred directly to FOR Collections listed below. These Collections contain ONLY foreign patents or non-patent literature. The par- |
| 908 | .Crystallizing of neck portion of hollow article or hollow preform | enthetical references in the Collection titles refer to the abolished subclasses from which these Collections were derived. |
| 909 | DIRECT APPLICATION OF FLUID | TIOM WHICH CHESC COTTECTIONS WETE GETTVEG. |
| | PRESSURE DIFFERENTIAL TO STRETCH AN ARTICLE OR PREFORM | |
| | AND HEAT SHRINKING OF STRETCHED ARTICLE OR PREFORM | FOR 100 REPAIRING OR RESTORING ARTICLES FOR REUSE (264/36) |
| 910 | SINTERING TO PRODUCE TRANSLUCENT INORGANIC ARTICLE | FOR 101 RECYCLING OF RECLAIMED OR |
| 911 | RECYCLING CONSUMER USED ARTICLES OR PRODUCTS | PURIFIED PROCESS MATERIAL (264/37) |
| 912 | <pre>.From toroidal shapes (e.g., resilient tires, etc.)</pre> | FOR 102 .Of extrudant-receiving bath material (264/38) |
| 913 | .From fiber or filament, or fiber or filament containing article or product (e.g., textile, | |
| | <pre>cloth fabric, carpet, fiberboard, etc.)</pre> | DIGESTS |
| 914 | <pre>From cellulose containing articles (e.g., paper, etc.)</pre> | DIG 1 METHODS OF BLOW-MOLDING CELLULAR CONTAINERS |
| 915 | .From inorganic material | DIG 2 MOLDING CELLULAR ALDEHYDE RESINS |
| | <pre>containing articles or products (e.g., hydro-set,</pre> | DIG 3 MOLDING CELLULAR PVC-ISOCYANATE RESINS |
| 016 | <pre>cement, plaster, wire, cable, etc.)</pre> | DIG 4 MOLDING AND FORMING BENDABLE AND FLEXIBLE PRODUCT FROM RIGID |
| 916 | <pre>.From porous material containing articles (e.g., sponge, foam, etc.)</pre> | PREFORM DIG 5 USE OF ONE OR MORE BLOWING AGENTS TOGETHER |
| 917 | .By blow molding material | DIG 6 MOLDING MICROBALLOONS AND BINDER |
| | recycled from consumer used article or product | DIG 7 BINDING AND MOLDING CELLULAR PARTICLES |
| 918 | .From hollow- or container-type | DIG 8 FIBRILLATING CELLULAR MATERIALS |
| | articles (e.g., tubes, bottles, cups, etc.) | DIG 9 PRE-EXPANSION OF FOAMED POLYSTYRENE |
| 919 | From pipe or tube (e.g., hose, | DIG 10 FOAMED POLYSTYRENE MOLD FILLING |
| 920 | etc.) .By extruding material recycled | DIG 11 MOLDING STYROPOR USING STEAM PROBES-BATCH |
| | from consumer used article or product | DIG 12 MOLDING STYROPOR USING STEAM PROBES CONTINUOUS |

| DTG 10 | | DTG 51 | |
|--------|--|------------------|---|
| DIG 13 | CELL SIZE AND DISTRIBUTION | DIG 51 | USE OF FLUIDIZED BED IN MOLDING |
| DIG 14 | CONTROL WHILE MOLDING A FOAM FORMING INTEGRAL SKIN ON A FOAMED | DIG 52 | PROCESSES OF MAKING CORRUGATED TUBES FOR GAS MASK |
| DIG 14 | PRODUCT | DIG 53 | PROCESSES OF USING GLASS FILLER |
| DIG 15 | AGING OF FOAMED RESIN PRODUCTS | DIG 33 | IN MOLDING PROCESS |
| DIG 16 | MOLDING FOAMED POLYPROPYLENE | DIG 54 | PROCESSES IN MAKING INSULATORS |
| DIG IO | ARTICLES | DIG 55 | PROCESSES FOR MAKING JEWELRY |
| DIG 17 | MOLDING A FOAM CONTAINING A | DIG 56 | PROCESSES OF MOLDING LACTAMS |
| 220 27 | FILLER | DIG 57 | PROCESSES OF FORMING LAYERED |
| DIG 18 | CROSS-LINKING A THERMOPLASTIC | D10 37 | PRODUCTS |
| | LINEAR FOAM DURING MOLDING | DIG 58 | PROCESSES OF FORMING MAGNETS |
| DIG 19 | INORGANIC FIBER | DIG 59 | PROCESSES IN WHICH A PARTIAL CURE |
| DIG 20 | TAR BONDED | | IS INVOLVED |
| DIG 25 | METALLIC OXIDE | DIG 60 | PROCESSES OF MOLDING PLASTISOLS |
| DIG 26 | COMPOSITE FIBERS MADE OF TWO OR | DIG 61 | PROCESSES OF MOLDING POLYAMIDE |
| | MORE MATERIALS | DIG 62 | PROCESSES OF MOLDING POROUS FILMS |
| DIG 27 | PROCESS OF SPINNING VISCOSE WHERE | DIG 63 | PROCESSES OF MOLDING POROUS |
| | VISCOSE HAS HIGH DEGREE OF | | BLOCKS |
| | POLYMERIZATION | DIG 64 | PROCESSES OF USING PREFORMS IN |
| DIG 28 | STRETCHING FILAMENTS IN GAS OR | | MOLDING |
| | STEAM | DIG 65 | PROCESSES OF PREHEATING PRIOR TO |
| DIG 29 | MIXED RESIN FILAMENTS | | MOLDING |
| DIG 30 | USE OF ANATOMY IN MAKING A MOLD | DIG 66 | PROCESSES OF RESHAPING AND |
| | OR USING SAID MOLD | | REFORMING |
| DIG 31 | PROCESSES OF MAKING TILE AND | DIG 67 | FORMING RING-LIKE STRUCTURE |
| DTG 20 | TILE-LIKE SURFACES | DIG 68 | ROLL |
| DIG 32 | PROCESSES IN MOLDING USING | DIG 70 | PROCESSES FOR FORMING SCREENS OR |
| DIG 33 | ASBESTOS OR ASPHALT | DTG 71 | PERFORATING ARTICLES |
| סדת 23 | BLOW-MOLDING ARTICLES OF NONUNIFORM THICKNESS | DIG 71 DIG 72 | PROCESSES OF SHAPING BY SHRINKING |
| DIG 34 | PROCESSES AND MOLDS FOR MAKING | DIG 72 DIG 73 | PROCESSES OF MOLDING BY SPRAYING PROCESSES OF STRETCHING |
| D10 31 | BUTTONS | DIG 73 | PROCESSES OF SIREICHING PROCESSES OF REPAIRING TIRES |
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